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ARISTOLOCHIA DAVILAE (ARISTOLOCHIACEAE), A NEW SPECIES FROM NAYARIT, MEXICO

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This contribution complements previously published papers dealing with the Flora of Nayarit Project (Mendez & Téllez 1995; Téllez 1995), carried out for several years by the Instituto de Biología UNAM.

Aristolochia davilae Calzada, Flores & O. Téllez, sp. nov.—TYPE: MEXICO. Nayarit: Mpio. Nayar, cañada en el ejido Carretones de Cerrito, ca. 4 km al E de la cortina del Proyecto Hidroeléctrico Aguamilpa, 21°50'30"N, 104°45'50"W, bosque tropical caducifolio, suelo negro, rocoso, 180 m, 20 Aug 1993, *Calzada, Flores & Solís 18596* (holotype: MEXU!; isotype, MICH!). Fig. 1.

Herbae perennes 40.0–60.0 cm altae, erectae vel scandentes. Laminae (2.6–) 3.7–7.7 cm longa, (0.3–) 0.5–2.6 cm lata, linearia vel lineari–lanceolata vel hastata, basi auriculata. Flores ca. 5.0 cm longi, flavovirides, solitarii, axillares; stamina 5, columna ca. 1.5 mm longa. Capsulae ca. 1.5 cm longae, ca. 1.2 cm latae, sphaericae, laevigatae, cinereae; semina ca. 4.0 mm longa, ca. 3.0–4.0 mm lata, triangularia.

Perennial herbs 40.0–60.0 cm tall, erect to scandent; stems puberulent. Main root 20.0–25.0 cm long, the bark divided in small quadrangular plates, brownish. Laminas (2.6–) 3.7–7.7 cm long, (0.3–) 0.5–2.6 cm wide, linear–lanceolate to hastate but the base auriculate, linear in the distal parts of branches, apex acuminate to acute, adaxially densely tuberculate, mainly on the nerves, abaxially glabrous to spreading-hispid and tuberculate, margin tuberculate but appearing ciliate; primary nerves 3, secondary venation reticulate, inconspicuous; petiole 0.3–0.5 cm long, puberulent. Flowers solitary, axillary, yellowish green, the throat red, puberulent; calyx ca. 4.0 mm long, straight, densely puberulent; corolla ca. 5.0 cm long, the limb ca. 1.4 cm wide; stamens 5, joined in a column ca. 1.5 mm long, 5-lobed at the apex. Capsules 1.0–1.5 cm long, ca. 1.2 cm in diameter, spherical to subspherical, smooth, puberulent, greenish, with three dehiscence lines; immature seeds ca. 4.0 mm long, 3.0–4.0 mm wide, triangular, the encircling wing not well developed.

Aristolochia davilae superficially resembles, especially in leaf shape, several species in subsect. *Pentandrae* (e.g., *A. acanthophylla, A. palmeri, A. porphyrophylla*), but it appears most closely related to small group of endemic species from Western Mexico, particularly to *A. bracteosa*, *A. oaxacana*, and *A. socorroensis* (table 1). Pfeiffer (1970) in his key divides subsect. *Pentandrae* into two groups, but without formally recognizing them. One group is characterized by straight,

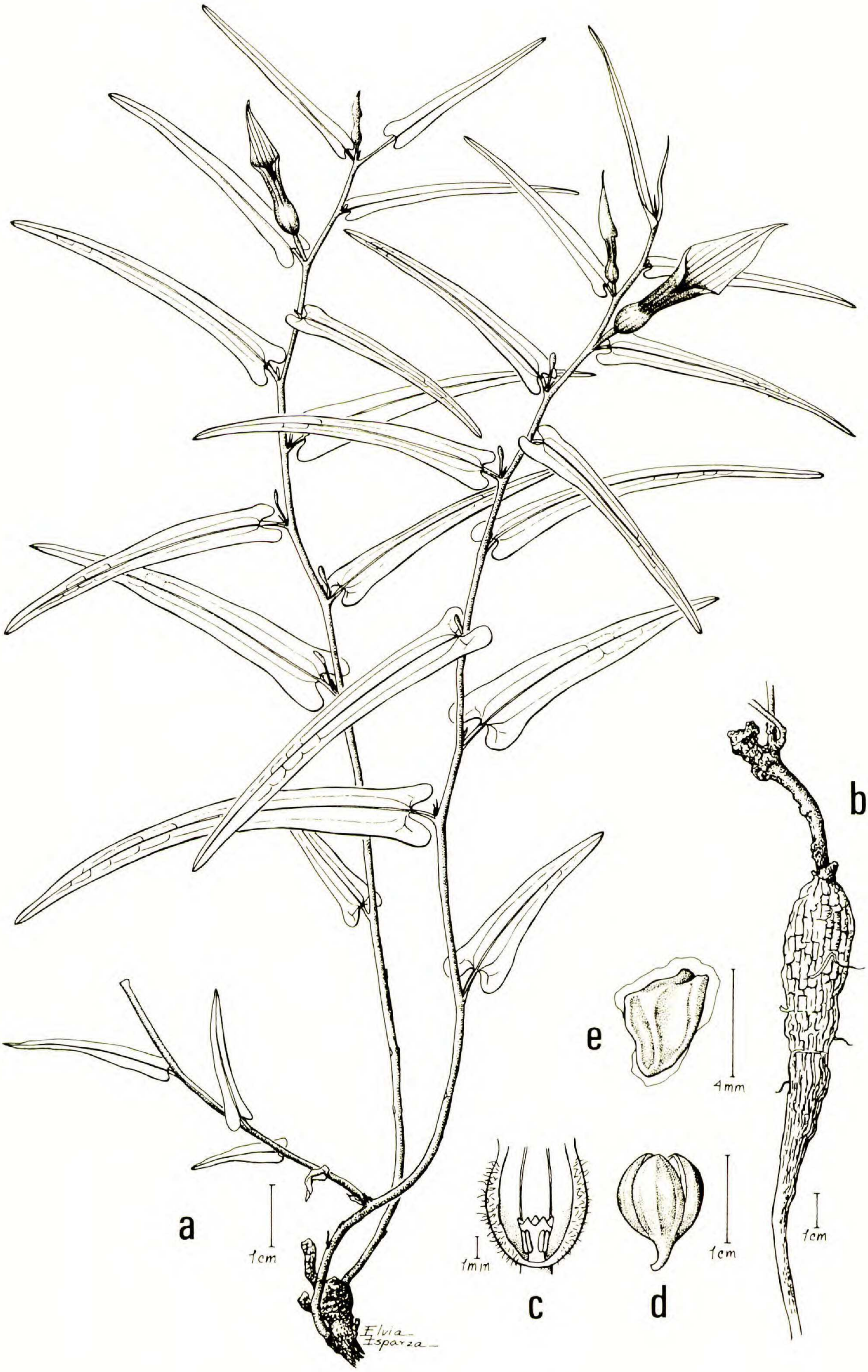

FIG. 1. *Aristolochia davilae*. a. Habit. b. Root. c. Section of flower showing the staminal column. d. Capsule. e. Immature seed. (Based on *Calzada et al. 18596*, MEXU.)

TABLE 1. Characters of *D. davilae* and its relatives.

	A. davilae	*A. oaxacana*	*A. bracteosa*	*A. socorroensis*
Habit	erect to climbing	prostrate	prostrate	prostrate
Lamina				
shape	linear-lanceolate	ovate to triangular	ovate, or triangular to lanceolate	hastate-trilobate
length	(2.6–) 3.7–7.7 cm	4.0 cm	2.5–10.0 cm	5.0 cm
width	(0.3–) 0.5–2.6 cm	2.0 cm	2.0–5.0 cm	4.0 cm
base	auriculate	cordate	deeply cordate	deeply cordate
indumentum	glabrous to spreading-hispid, tuberculate	subvelutinous to hispidulous	puberulent to subvelutinous	strigulose to densely hirsutulous
Petiole length	3.0–5.0 mm	0.3 mm	3.0–5.0 mm	10.0 mm
Calyx length	4.0 mm	3.0–4.5 mm	4.0–6.0 mm	6.0 mm
Stamens				
shape	columnar	columnar	coroniform	coroniform
length	1.5 mm	3.5 mm	3.5 mm	2.5 mm
Capsule				
shape	subspherical to spherical	oblate	subspherical to spherical	subspherical to spherical
length	1.0–1.5 cm	1.0 cm	2.0–3.0 cm	2.75 cm
diameter	1.2 cm	1.2 cm	1.0–1.5 cm	1.75 cm
Seeds				
length	4.0 mm	3.0 mm	5.0 mm	5.0 mm
width	3.0–4.0 mm	3.0 mm	4.0 mm	5.0 mm
Distribution	Nayarit	Oaxaca	Nayarit, Jalisco, Colima	Revillagigedo Islands

erect to subarcuate flowers, with an angle of less than 90°, and includes the three species considered closest to *A. davilae*. It is further divided into two parts; *A. davilae* is allied with the species that have a wide, 6-nerved floral limb with a rounded to acuminate apex. Species listed in the other part have a long-acuminate floral limb. Pfeiffer's second group comprises species that have geniculate flowers, with an angle of at least of 90° and the limb reflexed to the utricle.

Aristolochia davilae inhabits tropical deciduous forests at ca. 180 m, associated with *Acacia tenuifolia*, *Karwinskia latifolia*, *Diphysa suberosa*, *Chamaesyce umbellata*, *Hilaria ciliata*, *Jatropha cordata*, etc. Flowering and fruiting occur during the rainy season in August.

This species was collected on the islands created by the construction of the dam in the Aguamilpa Hydroelectric Project, as part of a flora and fauna rescue program carried out by the Instituto de Biología UNAM and the Comisión Federal de Electricidad (CFE) during 1993. We consider this species a restricted endemic to this region of Nayarit, and at the same time as an endangered species, because some of these islands have already disappeared below water level.

The name for this new species honors Dr. Patricia Dávila Aranda, researcher associated with the National Herbarium (MEXU), in recognition of her leadership in promoting botanical research in Mexico.

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